

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 7089

Petition of Central Vermont Public Service)
Corporation, pursuant to 30 V.S.A. § 248(j), for)
a certificate of public good authorizing the)
replacement of an existing 5 MVA transformer,)
and the replacement of the 7.5 MVA)
transformer with a new 10 MVA transformer at)
the Manchester distribution substation in)
Manchester, Vermont

Order entered: 12/14/2005

I. INTRODUCTION

This case involves a petition filed by Central Vermont Public Service Corporation ("CVPS") on June 17, 2005, requesting a certificate of public good under 30 V.S.A. § 248(j) for the replacement and relocation of a 7.5 MVA transformer to replace an existing 5 MVA transformer, and the replacement of the 7.5 MVA transformer with a new 10 MVA transformer, at the Manchester distribution substation in Manchester, Vermont. The petitioner submitted prefiled testimony, proposed findings, and a proposed order pursuant to the requirements of 30 V.S.A. § 248(j).

This petition is a result of a failed transformer at CVPS's Thetford substation. On May 13, 2005, CVPS filed a petition with the Public Service Board ("Board") requesting a waiver, pursuant to Section 248(k) of Section 248's general prohibition against site preparation and construction of electric transmission facilities prior to the issuance of a certificate of public good from the Board. The May 13 petition stated that a 3.75 MVA transformer had failed and requested authorization from the Board to replace the failed transformer at Thetford with a 5 MVA transformer from its Manchester substation. The transformers at the Manchester substation would then be replaced as described above. On May 20, 2005, the Board issued an

Order, pursuant to Section 248(k), granting CVPS's petition. As a condition of the May 20 Order, CVPS was required to file a petition for such construction pursuant to Section 248(j), and address in such petition whether oil containment at the Manchester site was necessary.

Notice of the filing in this Docket was sent on August 15, 2005, to all entities specified in 30 V.S.A. § 248(a)(4)(c) and all other interested parties. The notice stated that any party wishing to submit comments as to whether the petition raises a significant issue with respect to the substantive criteria of 30 V.S.A. § 248 needed to file comments with the Board on or before September 15, 2005. A similar notice of the filing was published in the *Bennington Banner* on August 18 and August 25, 2005. The only comment received was from the Vermont Department of Public Service ("Department") stating that it does not believe that the petition raises a significant issue with respect to the criteria of Section 248 and has no objection to the issuance of a certificate of public good.

The Board has determined that the proposed construction will be of limited size and scope and that the petition has effectively addressed the issues raised with respect to the substantive criteria of 30 V.S.A. § 248. Consequently, we find that the procedures authorized by Section 248(j) are sufficient to satisfy the public interest and no hearings are required.

II. FINDINGS

1. CVPS is a company, as defined in 30 V.S.A. § 201. CVPS is a duly organized public service corporation with its principle place of business at 77 Grove Street, Rutland, Vermont. Petition at 1.

2. The proposed project involves the replacement of existing 5 MVA and 7.5 MVA substation transformers with 7.5 and 10 MVA transformers, respectively, at the Manchester distribution substation in Manchester, Vermont. Jones pf. at 3; exh. CVPS-KLJ-1.

3. The proposed project also involves upgrades of the voltage regulators on the Manchester13 circuit from 328 to 438 amperes. Jones pf. at 3.

4. No changes to the substation footprint, or existing structures and foundation will be necessary. The transformers will be placed on existing foundations. Upton pf. at 4.

5. The proposed project is designed to ensure that the substation transformers can provide effective backup for one another during most outages or contingencies. Jones pf. at 2.

Orderly Development of the Region

[30 V.S.A. § 248(b)(1)]

6. The proposed project will not unduly interfere with the orderly development of the region, with due consideration having been given to the recommendations of the municipal and regional planning commissions, the recommendations of municipal legislative bodies, and the land conservation measures contained in the plan of the affected municipality. This finding is supported by findings 7 through 9, below.

7. The proposed project will not impact existing or planned land uses in the area and will not conflict with any land conservation measures in the municipal plan. Upton pf. at 2.

8. The proposed project will not have an unduly adverse impact on land conservation measures included in the Manchester Town Plan. The proposed project consists of replacement of transformers and voltage regulators on existing foundations. Upton pf. at 2.

9. The Manchester Planning Commission, the Manchester Selectboard, and the Bennington County Regional Commission were provided with a description of the proposed project from CVPS. These entities did not recommend changes to the proposed project. The Manchester Selectboard and Manchester Planning Commission agreed with the proposed project to address the immediate problem. However, the Manchester Selectboard and Planning Commission did respond with some concerns regarding the long-term use of the site; they seek to avoid investments in the substation that would make it more difficult to convert the property to an alternate use in the future. Upton pf. at 2.

Need for Present and Future Demand for Service

[30 V.S.A. § 248(b)(2)]

10. The proposed project is required to meet the need for present and future demand for service which could not otherwise be provided in a more cost effective manner through energy

conservation programs and measures and energy efficiency and load management measures. This finding is supported by findings 11 through 13, below.

11. The two substation transformers are used to provide backup for one another during contingencies and planned outages. With present loading, the existing 5 MVA transformer (on Bank #1) is able to carry the load from both circuits approximately 56% of the time, and the existing 7.5 MVA transformer (on Bank #2) is able to carry both circuits approximately 84% of the time. Jones pf. at 4-6.

12. With completion of the proposed project, reliability will be significantly increased, because the 10 MVA transformer will be able to carry the load from both circuits 100% of the time, and Bank #1 with the 7.5 MVA transformer will be able to carry that load 84% of the time. Jones pf. at 4.

13. The purpose of the proposed project is to improve reliability, not to serve growth, and does not trigger Distributed Utility Planning ("DUP") analysis. Even a reduction of 25% of the load would still leave the load exposed 25% of the time; therefore, such a load reduction would not defer the recommended upgrade. Jones pf. at 5.

System Stability and Reliability

[30 V.S.A. § 248(b)(3)]

14. The proposed project will not adversely affect system stability. The proposed project will increase reliability by substantially reducing the likelihood of service interruptions. Jones pf. at 5-6.

Economic Benefit to the State

[30 V.S.A. § 248(b)(4)]

15. The proposed project will provide an economic benefit by improving reliability for unplanned and planned contingencies and will improve reliability for customers served by the Manchester substation. Jones pf. at 4.

**Aesthetics, Historic Sites, Air and Water Purity,
the Natural Environment and Public Health and Safety**

[30 V.S.A. § 248(b)(5)]

16. The modifications as proposed will not have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment and public health and safety. This finding is supported by findings 17 through 38 below, which are the criteria specified in 10 V.S.A. §§ 1424(a)(d) and 6086(a)(1)-(8)(a) and (9)(k).

Outstanding Resource Waters

[10 V.S.A. § 1424(a)(d)]

17. The Batten Kill, which is a designated Outstanding Resource Water, is approximately 400 feet away and across Depot Street. Replacing the two existing transformers on existing foundations will not have any effect on the River. Upton pf. at 9. This finding is supported by findings 21 through 25 below, regarding waste disposal.

Water and Air Pollution

[10 V.S.A. § 6086(a)(1)]

18. The proposed project will not result in unreasonable air pollution. The work will be limited to the replacement of two existing transformers and one set of voltage regulators. Upton pf. at 3.

Headwaters

[10 V.S.A. § 6086(a)(1)(A)]

19. The proposed project is not located in a headwaters area. Upton pf. at 3.

Waste Disposal

[10 V.S.A. § 6086(a)(1)(B)]

20. The proposed project will meet any applicable health and environmental conservation department regulations regarding the disposal of wastes. This finding is supported by findings 21-25, below.

21. The proposed project does not involve disposal of wastes or injection of any material into surface or ground water. Upton pf. at 3.

22. The Board directed CVPS to specifically address oil containment in its petition, after consultation with the Agency of Natural Resources. The U.S. Environmental Protection Agency ("EPA") has jurisdiction over spill preparedness for facilities of this type. Department of Environmental Conservation ("DEC") Regulations apply to the disposal of waste contaminated by oil subsequent to a spill. In accordance with EPA regulations, CVPS maintains a Spill Prevention, Control, and Countermeasures Plan for the Manchester substation. The response to any oil release will be performed in coordination with DEC. The DEC Waste Management Division Spill Program does not have concerns with the proposed project as described by CVPS. Upton pf. at 3-4; exh. TOU-2.

23. The risks associated with oil spills will be essentially unchanged as a result of the proposed project. The likelihood of a release of transformer oil large enough to travel outside the substation yard, enter any nearby surface waters, and subsequently enter the Batten Kill is extremely remote. Upton pf. at 4-5; exh. TOU-2.

24. CVPS investigated the history of the existing substation transformers and found no record of oil releases during their lifetimes. All of the equipment to be installed and replaced is classified as non-PCB through manufacturer certification or individual laboratory test. Upton pf. at 5.

25. Given the low risks of oil spills and infiltration into nearby water resources, it would not be practical to build new oil containment systems for the substation transformers at this time. When constructing or reconstructing substations it is normal practice of CVPS to install new oil containment systems. Due to the simplicity and small scope of the proposed work for this proposed project, it would not be cost effective to replace the current containment system. It is

CVPS's intention to consolidate its transmission and distribution substations within the next decade if possible, in which case the existing substation could be relocated. Both Manchester and CVPS would prefer to relocate the substation if possible. Upton pf. at 5; exh.. TOU-3.

Water Conservation

[10 V.S.A. § 6086(a)(1)(C)]

26. The proposed project will not require the use of water. Upton pf. at 5.

Floodways, Streams, and Shorelines

[10 V.S.A. §§ 6086(a)(1)(D)(E) &(F)]

27. The proposed project is not in or adjacent to a floodway, stream, or shoreline. Upton pf. at 6.

Wetlands

[10 V.S.A. § 6086(a)(1)(G)]

28. There are no Class I or II Wetlands in the proposed project area. Exh. TOU-1.

Sufficiency of Water and Burden on Existing Water Supply

[10 V.S.A. §§ 6086(a)(2)&(3)]

29. The proposed project will not require the use of water and will not place a burden on any existing water supply. The facility is not located within any designated Source Protection Areas. Upton pf. at 6; exh. TOU-1.

Soil Erosion

[10 V.S.A. § 6086(a)(4)]

30. The proposed project is limited to the replacement of transformers and regulators on existing foundations and will not cause unreasonable congestion or unsafe conditions with respect to transportation systems. Upton pf. at 6-7.

Transportation Systems

[10 V.S.A. § 6086(a)(5)]

31. The existing access from Depot Street will remain unchanged. The proposed project will not cause unreasonable congestion or unsafe conditions with respect to transportation systems. Upton pf. at 7.

Educational Services

[10 V.S.A. § 6086(a)(6)]

32. No additional educational services will be required by the facility as a result of the proposed modifications. Upton pf. at 7.

Municipal Services

[10 V.S.A. § 6086(a)(7)]

33. No additional municipal services will be required as a result of the proposed modifications. Upton pf. at 7.

**Aesthetics, Historic Sites
and Rare and Irreplaceable Natural Areas**

[10 V.S.A. § 6086(a)(8)]

34. The proposed project will not have an undue adverse effect on the scenic or natural beauty, aesthetics, historic sites or rare and irreplaceable natural areas. This finding is supported by findings 35 through 36, below.

35. All work will take place within the limits of the existing substation. Because it will be built on an existing substation lot away from rivers or streams, and involves the replacement of existing equipment, the proposed project will not have any impact on potential archeological sites. The replacement of existing equipment will not affect any nearby buildings of potential historic significance. There are no known rare or irreplaceable natural areas at the proposed project site. Upton pf. at 8.

36. The new 10 MVA transformer will have somewhat different dimensions than the previous transformer. The new 10 MVA transformer will be 44 inches longer, 24 inches wider, and 30 inches shorter than the 5 MVA. The new and relocated transformers will be in the same locations as the original transformers. The change in the transformers is therefore, minimal and will not have an adverse impact on aesthetics. Upton pf. at 8.

Discussion

Based on the above findings, the Board finds that the proposed project will not have an undue adverse effect on the aesthetics or scenic and natural beauty of the area. In reaching this conclusion, the Board has relied on the Environmental Board's methodology for determination of "undue" adverse effects on aesthetics and scenic and natural beauty as outlined in the so-called Quechee Lakes decision. Quechee Lakes Corporation, #3W0411-EB and 3W0439-EB, dated January 13, 1986.

As required by Quechee Lakes, it is first appropriate to determine if the impact of the proposed project would be adverse. The proposed project would have an adverse impact on the aesthetics of the area if its design is out of context or not in harmony with the area in which it would be located. If it is found that the impact would be adverse, it is then necessary to determine that such an adverse impact would be "undue." Such a finding would be required if the proposed project violates a clear written community standard intended to preserve the aesthetics or scenic beauty of the area, if it would offend the sensibilities of the average person, or if generally available mitigating steps would not be taken to improve the harmony of the proposed project with its surroundings. The Board's assessment of whether a particular proposed project will have an "undue" adverse effect based on these standards should be significantly informed by the overall societal benefits of the project.¹

Because the two new transformers will be in the same location, and will be nearly the same size as the old transformers, the proposed project will fit the context of its surroundings and will not have an adverse impact on aesthetics.

1. Docket 6884, Order of 4/21/04 at 20-21.

Necessary Wildlife Habitat and Endangered Species

[10 V.S.A. § 6086(a)(8)(A)]

37. The proposed project will not impact any necessary wildlife habitat or affect any known sites containing endangered species. Upton pf. at 9; exh. TOU-1.

Development Affecting Public Investments

[10 V.S.A. § 6086(a)(9)(K)]

38. The proposed modifications will not impact any public areas or investments. Upton pf. at 9.

Least-Cost Integrated Resource Plan

[30 V.S.A. § 248(b)(6)]

39. The proposed project is consistent with the principles for resource selection set forth in CVPS' approved least-cost integrated plan. Jones pf. at 6.

Compliance with Electric Energy Plan

[30 V.S.A. § 248(b)(7)]

40. The plan states that "each utility should on a continuous basis assess and enhance the reliability of its power system and "evaluate optimum engineering configurations for each circuit. Reliability and safety criteria should be reflected." This project does this by reducing exposure and providing backup for the entire load 100% of the time, improving reliability for unplanned and planned contingencies. Jones pf. at 4-6.

41. On September 15, 2005, the Department of Public Service filed a letter with the Board stating that the proposed project complies with the Twenty-Year Electric Plan. Letter of September 15, 2005, from Geoffrey Commons, Esq., to Susan M. Hudson, Clerk of the Board.

Outstanding Resource Waters

[30 V.S.A. § 248(b)(8)]

42. The Batten Kill, which is a designated Outstanding Resource Water, is approximately 400 feet away and across Depot Street. Replacing the two existing transformers on existing foundations will not have any effect on the River. Upton pf. at 9; *see* also findings 21 through 25, above.

Waste to Energy Facilities

[30 V.S.A. § 248(b)(9)]

43. The proposed project is not a municipal solid-waste-to-energy facility, and, therefore, this criterion is inapplicable.

Existing or Planned Transmission Facilities

[30 V.S.A. § 248(b)(10)]

44. The proposed project can be served economically by existing transmission facilities without undue adverse effect on Vermont utilities or customers. Jones pf. at 5-6.

III. CONCLUSION

Based upon all of the above evidence, we conclude that the proposed construction will be of limited size and scope; the petition does not raise a significant issue with respect to the substantive criteria of 30 V.S.A. § 248; the public interest is satisfied by the procedures authorized by 30 V.S.A. § 248(j); and the proposed project will promote the general good of the state.

IV. ORDER

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that the proposed modifications, in accordance with the evidence and plans presented in this proceeding, will promote the general good of the State of Vermont in accordance with 30 V.S.A. Section 248, and a certificate of public good shall be issued in the matter.

Dated at Montpelier, Vermont this 14th day of December, 2005.

<u>s/James Volz</u>)	
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<u>s/David C. Coen</u>)	PUBLIC SERVICE
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<u>s/John D. Burke</u>)	BOARD
)	
)	OF VERMONT

OFFICE OF THE CLERK

FILED: December 14, 2005

ATTEST: s/Susan M. Hudson
Clerk of the Board

Notice to Readers: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: Clerk@psb.state.vt.us)

Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.